

0590

1242

10 0330

1646

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/875,076

DATE: 12/19/2001

TIME: 12:59:06

Input Set : N:\Crif3\RULE60\09875076.RAW.txt

Output Set: N:\CRF3\12192001\I875076.raw

OIEP
RECEIVED
FEB 06 2002
TECH CENTER 1600/2900

1 <110> APPLICANT: Chen, Ruoping
2 Dang, Huong T.
3 Liaw, Chen W.
4 Lin, I-Lin
5 <120> TITLE OF INVENTION: Human Orphan G Protein Coupled Receptors
6 <130> FILE REFERENCE: AREN0050
7 <140> CURRENT APPLICATION NUMBER: 09/875,076
8 <141> CURRENT FILING DATE: 2001-06-06
9 <150> PRIOR APPLICATION NUMBER: 09/417,044
10 <151> PRIOR FILING DATE: 1999-10-12
11 <150> PRIOR APPLICATION NUMBER: 60/120,416
12 <151> PRIOR FILING DATE: 1999-02-16
13 <150> PRIOR APPLICATION NUMBER: 60/121,851
14 <151> PRIOR FILING DATE: 1999-02-26
15 <150> PRIOR APPLICATION NUMBER: 60/123,946
16 <151> PRIOR FILING DATE: 1999-03-12
17 <150> PRIOR APPLICATION NUMBER: 60/123,949
18 <151> PRIOR FILING DATE: 1999-03-12
19 <150> PRIOR APPLICATION NUMBER: 60/136,436
20 <151> PRIOR FILING DATE: 1999-05-28
21 <150> PRIOR APPLICATION NUMBER: 60/136,437
22 <151> PRIOR FILING DATE: 1999-05-28
23 <150> PRIOR APPLICATION NUMBER: 60/136,439
24 <151> PRIOR FILING DATE: 1999-05-28
25 <150> PRIOR APPLICATION NUMBER: 60/136,567
26 <151> PRIOR FILING DATE: 1999-05-28
27 <150> PRIOR APPLICATION NUMBER: 60/137,127
28 <151> PRIOR FILING DATE: 1999-05-28
29 <150> PRIOR APPLICATION NUMBER: 60/137,131
30 <151> PRIOR FILING DATE: 1999-05-28
31 <150> PRIOR APPLICATION NUMBER: 60/141,448
32 <151> PRIOR FILING DATE: 1999-06-29
33 <150> PRIOR APPLICATION NUMBER: 60/156,653
34 <151> PRIOR FILING DATE: 1999-09-29
35 <150> PRIOR APPLICATION NUMBER: 60/156,633
36 <151> PRIOR FILING DATE: 1999-09-29
37 <150> PRIOR APPLICATION NUMBER: 60/156,555
38 <151> PRIOR FILING DATE: 1999-09-29
39 <150> PRIOR APPLICATION NUMBER: 60/156,634
40 <151> PRIOR FILING DATE: 1999-09-29
41 <150> PRIOR APPLICATION NUMBER: 60/157,280
42 <151> PRIOR FILING DATE: 1999-10-01
43 <150> PRIOR APPLICATION NUMBER: 60/157,294
44 <151> PRIOR FILING DATE: 1999-10-01
45 <150> PRIOR APPLICATION NUMBER: 60/157,281
46 <151> PRIOR FILING DATE: 1999-10-01
47 <150> PRIOR APPLICATION NUMBER: 60/157,293

ENTERED

RAW SEQUENCE LISTING

DATE: 12/19/2001

PATENT APPLICATION: US/09/875,076

TIME: 12:59:06

Input Set : N:\Crf3\RULE60\09875076.RAW.txt

Output Set: N:\CRF3\12192001\I875076.raw

```

48 <151> PRIOR FILING DATE: 1999-10-01
49 <150> PRIOR APPLICATION NUMBER: 60/157,282
50 <151> PRIOR FILING DATE: 1999-10-01
51 <160> NUMBER OF SEQ ID NOS: 74
52 <170> SOFTWARE: PatentIn Ver. 2.1
54 <210> SEQ ID NO: 1
55 <211> LENGTH: 1260
56 <212> TYPE: DNA
57 <213> ORGANISM: Homo sapiens
58 <400> SEQUENCE: 1
59      atgggtcttct cggcagtggt gactgcgttc cataccggga catccaacac aacatttgtc 60
60      gtgtatgaaa acacctacat gaattattaca ctccctccac cattccagca tcttgacctc 120
61      agtccattgc ttagatatag ttttgaaacc atggctccca ctggtttgag ttccttgacc 180
62      gtgaatagta cagctgtgcc cacaacacca gcagcattta agagcctaaa cttgcctctt 240
63      cagatcaccc tttctgctat aatgatattc attctgtttg tgtcttttct tgggaacttg 300
64      gttgtttgcc tcatggttta ccaaaaagct gccatgaggt ctgcaattaa catcctcctt 360
65      gccagcctag cttttgcaga catgttgctt gcagtgtga acatgccctt tgccttggtg 420
66      actattctta ctaccgatg gatttttggg aaattcttct gtagggtatc tgctatgttt 480
67      ttctgggttat ttgtgataga aggagtagcc atcctgctca tcattagcat agatagggtt 540
68      cttattatag tccagaggca ggataagcta aacccatata gagctaagggt tctgattgca 600
69      gtttcttggg caacttctt ttgtgtagct tttcctttag ccgtaggaaa ccccgacctg 660
70      cagatacctt cccgagctcc ccagtgtgtg tttgggtaca caaccaatcc aggctaccag 720
71      gcttatgtga ttttgatttc tctcatttct ttcttcatac ccttcctggt aatactgtac 780
72      tcatttatgg gcatactcaa cacccttcgg cacaatgcct tgaggatcca tagctaccct 840
73      gaaggtatat gcctcagcca ggccagcaaa ctgggtctca tgagtctgca gagacctttc 900
74      cagatgagca ttgacatggg ctttaaaaca cgtgccttca ccactatttt gattctcttt 960
75      gctgtcttca ttgtctgctg ggccccattc accacttaca gccttggtggc aacattcagt 1020
76      aagcactttt actatcagca caactttttt gagattagca cctggctact gtggctctgc 1080
77      tacctcaagt ctgcattgaa tccgctgctc tactactgga ggattaagaa attccatgat 1140
78      gcttgcttgg acatgatgcc taagtccttc aagtttttgc cgcagctccc tggtcacaca 1200
79      aagcgacgga tacgtcctag tctgtcttat gtgtgtgggg aacatcgga ggtgggtgtg 1260
81 <210> SEQ ID NO: 2
82 <211> LENGTH: 419
83 <212> TYPE: PRT
84 <213> ORGANISM: Homo sapiens
85 <400> SEQUENCE: 2
86      Met Val Phe Ser Ala Val Leu Thr Ala Phe His Thr Gly Thr Ser Asn
87      1          5          10          15
88      Thr Thr Phe Val Val Tyr Glu Asn Thr Tyr Met Asn Ile Thr Leu Pro
89      20          25          30
90      Pro Pro Phe Gln His Pro Asp Leu Ser Pro Leu Leu Arg Tyr Ser Phe
91      35          40          45
92      Glu Thr Met Ala Pro Thr Gly Leu Ser Ser Leu Thr Val Asn Ser Thr
93      50          55          60
94      Ala Val Pro Thr Thr Pro Ala Ala Phe Lys Ser Leu Asn Leu Pro Leu
95      65          70          75          80
96      Gln Ile Thr Leu Ser Ala Ile Met Ile Phe Ile Leu Phe Val Ser Phe
97      85          90          95
98      Leu Gly Asn Leu Val Val Cys Leu Met Val Tyr Gln Lys Ala Ala Met

```

RAW SEQUENCE LISTING

DATE: 12/19/2001

PATENT APPLICATION: US/09/875,076

TIME: 12:59:06

Input Set : N:\Crf3\RULE60\09875076.RAW.txt

Output Set: N:\CRF3\12192001\I875076.raw

```

99          100          105          110
100  Arg Ser Ala Ile Asn Ile Leu Leu Ala Ser Leu Ala Phe Ala Asp Met
101          115          120          125
102  Leu Leu Ala Val Leu Asn Met Pro Phe Ala Leu Val Thr Ile Leu Thr
103          130          135          140
104  Thr Arg Trp Ile Phe Gly Lys Phe Phe Cys Arg Val Ser Ala Met Phe
105  145          150          155          160
106  Phe Trp Leu Phe Val Ile Glu Gly Val Ala Ile Leu Leu Ile Ile Ser
107          165          170          175
108  Ile Asp Arg Phe Leu Ile Ile Val Gln Arg Gln Asp Lys Leu Asn Pro
109          180          185          190
110  Tyr Arg Ala Lys Val Leu Ile Ala Val Ser Trp Ala Thr Ser Phe Cys
111          195          200          205
112  Val Ala Phe Pro Leu Ala Val Gly Asn Pro Asp Leu Gln Ile Pro Ser
113          210          215          220
114  Arg Ala Pro Gln Cys Val Phe Gly Tyr Thr Thr Asn Pro Gly Tyr Gln
115  225          230          235          240
116  Ala Tyr Val Ile Leu Ile Ser Leu Ile Ser Phe Phe Ile Pro Phe Leu
117          245          250          255
118  Val Ile Leu Tyr Ser Phe Met Gly Ile Leu Asn Thr Leu Arg His Asn
119          260          265          270
120  Ala Leu Arg Ile His Ser Tyr Pro Glu Gly Ile Cys Leu Ser Gln Ala
121          275          280          285
122  Ser Lys Leu Gly Leu Met Ser Leu Gln Arg Pro Phe Gln Met Ser Ile
123          290          295          300
124  Asp Met Gly Phe Lys Thr Arg Ala Phe Thr Thr Ile Leu Ile Leu Phe
125  305          310          315          320
126  Ala Val Phe Ile Val Cys Trp Ala Pro Phe Thr Thr Tyr Ser Leu Val
127          325          330          335
128  Ala Thr Phe Ser Lys His Phe Tyr Tyr Gln His Asn Phe Phe Glu Ile
129          340          345          350
130  Ser Thr Trp Leu Leu Trp Leu Cys Tyr Leu Lys Ser Ala Leu Asn Pro
131          355          360          365
132  Leu Ile Tyr Tyr Trp Arg Ile Lys Lys Phe His Asp Ala Cys Leu Asp
133          370          375          380
134  Met Met Pro Lys Ser Phe Lys Phe Leu Pro Gln Leu Pro Gly His Thr
135  385          390          395          400
136  Lys Arg Arg Ile Arg Pro Ser Ala Val Tyr Val Cys Gly Glu His Arg
137          405          410          415
138  Thr Val Val
140 <210> SEQ ID NO: 3
141 <211> LENGTH: 1119
142 <212> TYPE: DNA
143 <213> ORGANISM: Homo sapiens
144 <400> SEQUENCE: 3
145  atgttagcca acagctcctc aaccaacagt tctgttctcc cgtgtcctga ctaccgacct 60
146  acccaaccgcc tgcacttggg ggtctacagc ttgggtgctgg ctgccgggct cccctcaac 120
147  gcgctagccc tctgggtctt cctgcgcgcg ctgcgcgtgc actcggtggt gacgctgtac 180
148  atgtgtaacc tggcggccag cgacctgctc ttcacctctt cgctgcccg tctctctccc 240

```

RAW SEQUENCE LISTING

DATE: 12/19/2001

PATENT APPLICATION: US/09/875,076

TIME: 12:59:06

Input Set : N:\Crf3\RULE60\09875076.RAW.txt

Output Set: N:\CRF3\12192001\I875076.raw

```

149 tactacgcac tgcaccactg gcccttcccc gacctcctgt gccagacgac gggcgccatc 300
150 ttccagatga acatgtacgg cagctgcac ttccctgatgc tcatcaacgt ggaccgctac 360
151 gccgccatcg tgcacccgct gcgactgcgc cacctgcggc ggcccccgct ggcgcggctg 420
152 ctctgcctgg gcgtgtgggc gctcatcctg gtgtttgccg tgcccgccgc ccgcgtgcac 480
153 aggccctcgc gttgccgcta ccgggacctc gaggtgcgcc tatgcttcga gagcttcage 540
154 gacgagctgt ggaaaggcag gctgctgccc ctgctgctgc tggccgaggc gctgggcttc 600
155 ctgctgcccc tggcgggcgt ggtctactcg tcgggcccag tcttctggac gctggcgccg 660
156 cccgagccca cgcagagcca gcggcgccgg aagaccgtgc gcctcctgct ggctaacctc 720
157 gtcactcttc tgcgtgtgctt cgtgccctac aacagcacgc tggcggtcta cgggctgctg 780
158 cggagcaagc tgggtggcgg cagcgtgcct gcccgcgatc gcgtgcgcgg ggtgctgatg 840
159 gtgatgggtg tgcgtggcgg cgccaaactg gtgctggacc cgctggtgta ctacttttag 900
160 gccgagggct tccgcaaac cctgcgcggc ctgggcactc cgcaccgggc caggacctcg 960
161 gccaccaacg ggacgcgggc ggcgctcgcg caatccgaaa ggtccgccgt caccaccgac 1020
162 gccaccaggc cggatgccgc cagtcagggg ctgctccgac cctccgactc ccactctctg 1080
163 tcttcttcca cacagtgtcc ccaggattcc gccctctga 1119

```

165 <210> SEQ ID NO: 4

166 <211> LENGTH: 372

167 <212> TYPE: PRT

168 <213> ORGANISM: Homo sapiens

169 <400> SEQUENCE: 4

```

170 Met Leu Ala Asn Ser Ser Ser Thr Asn Ser Ser Val Leu Pro Cys Pro
171 1 5 10 15
172 Asp Tyr Arg Pro Thr His Arg Leu His Leu Val Val Tyr Ser Leu Val
173 20 25 30
174 Leu Ala Ala Gly Leu Pro Leu Asn Ala Leu Ala Leu Trp Val Phe Leu
175 35 40 45
176 Arg Ala Leu Arg Val His Ser Val Val Ser Val Tyr Met Cys Asn Leu
177 50 55 60
178 Ala Ala Ser Asp Leu Leu Phe Thr Leu Ser Leu Pro Val Arg Leu Ser
179 65 70 75 80
180 Tyr Tyr Ala Leu His His Trp Pro Phe Pro Asp Leu Leu Cys Gln Thr
181 85 90 95
182 Thr Gly Ala Ile Phe Gln Met Asn Met Tyr Gly Ser Cys Ile Phe Leu
183 100 105 110
184 Met Leu Ile Asn Val Asp Arg Tyr Ala Ala Ile Val His Pro Leu Arg
185 115 120 125
186 Leu Arg His Leu Arg Arg Pro Arg Val Ala Arg Leu Leu Cys Leu Gly
187 130 135 140
188 Val Trp Ala Leu Ile Leu Val Phe Ala Val Pro Ala Ala Arg Val His
189 145 150 155 160
190 Arg Pro Ser Arg Cys Arg Tyr Arg Asp Leu Glu Val Arg Leu Cys Phe
191 165 170 175
192 Glu Ser Phe Ser Asp Glu Leu Trp Lys Gly Arg Leu Leu Pro Leu Val
193 180 185 190
194 Leu Leu Ala Glu Ala Leu Gly Phe Leu Leu Pro Leu Ala Ala Val Val
195 195 200 205
196 Tyr Ser Ser Gly Arg Val Phe Trp Thr Leu Ala Arg Pro Asp Ala Thr
197 210 215 220
198 Gln Ser Gln Arg Arg Arg Lys Thr Val Arg Leu Leu Leu Ala Asn Leu

```

RAW SEQUENCE LISTING

DATE: 12/19/2001

PATENT APPLICATION: US/09/875,076

TIME: 12:59:06

Input Set : N:\Crf3\RULE60\09875076.RAW.txt

Output Set: N:\CRF3\12192001\I875076.raw

```

199      225      230      235      240
200      Val Ile Phe Leu Leu Cys Phe Val Pro Tyr Asn Ser Thr Leu Ala Val
201      245      250      255
202      Tyr Gly Leu Leu Arg Ser Lys Leu Val Ala Ala Ser Val Pro Ala Arg
203      260      265      270
204      Asp Arg Val Arg Gly Val Leu Met Val Met Val Leu Leu Ala Gly Ala
205      275      280      285
206      Asn Cys Val Leu Asp Pro Leu Val Tyr Tyr Phe Ser Ala Glu Gly Phe
207      290      295      300
208      Arg Asn Thr Leu Arg Gly Leu Gly Thr Pro His Arg Ala Arg Thr Ser
209      305      310      315      320
210      Ala Thr Asn Gly Thr Arg Ala Ala Leu Ala Gln Ser Glu Arg Ser Ala
211      325      330      335
212      Val Thr Thr Asp Ala Thr Arg Pro Asp Ala Ala Ser Gln Gly Leu Leu
213      340      345      350
214      Arg Pro Ser Asp Ser His Ser Leu Ser Ser Phe Thr Gln Cys Pro Gln
215      355      360      365
216      Asp Ser Ala Leu
217      370
219 <210> SEQ ID NO: 5
220 <211> LENGTH: 1107
221 <212> TYPE: DNA
222 <213> ORGANISM: Homo sapiens
223 <400> SEQUENCE: 5
224      atggccaact ccacagggct gaacgcctca gaagtcgcag gctcgttggg gttgatcctg 60
225      gcagctgtcg tggaggtggg ggcactgctg ggcaacggcg cgtcgtcgtt cgtgggtgctg 120
226      cgcacgccgg gactgcgcga cgcgctctac ctggcgccacc tgtgcgtcgt ggacctgctg 180
227      gcggccgcct ccacatgcc gctggggcctg ctggccgcac cgcgcgcccg gctggggccgc 240
228      gtgcgcctgg gccccgcgcc atgcgcgcgc gctcgtttcc tctccgcgcg tctgctgccg 300
229      gcctgcacgc tcggggtggc cgcacttggc ctggcacgct accgcctcat cgtgcacccg 360
230      ctgcggccag gctcgcggcc gccgcctgtg ctcgtgctca ccgcctgtg ggccgcggcg 420
231      ggactgctgg gcgcgtcttc cctgctcggc ccgcgcgccg caccgcccc tgcctctgct 480
232      cgctgctcgg tcttggtgg gggcctcggg ccttcgcggc cgtcttgggc cctgctggcc 540
233      ttgcgcctgc ccgcctcct gctgctcggc gcctacggcg gcatcttcgt ggtggcgctg 600
234      cgcgctgccc tgaggcccc acggccggcg cgcgggtccc gactccgctc ggactctctg 660
235      gatagccgcc ttccatctt gccgcgcctc cggcctcgcg tgcgcggggg caaggcggcc 720
236      ctggccccag cgtggccgt gggccaattt gcagcctget ggctgcctta tggtgcgcg 780
237      tgccctggcg ccgcagcgcg ggccgcggaa gccgaagcgg ctgtcacctg ggtcgcctac 840
238      toggccttcg cggctcacc cttcctgtac gggctgctgc agcgcgccgt gcgcttggca 900
239      ctgggcccgc tctctgcgc tgcactgcct ggacctgtgc gggcctgcac tccgcaagcc 960
240      tggcaccgcg gggcactctt gcaatgcctc cagagacccc cagagggccc tgccgtaggg 1020
241      cttctgagg ctccagaaca gacccccgag ttggcaggag ggcggagccc cgcataccag 1080
242      gggccacctg agagtctct ctctga
243      1107
244 <210> SEQ ID NO: 6
245 <211> LENGTH: 368
246 <212> TYPE: PRT
247 <213> ORGANISM: Homo sapiens
248 <400> SEQUENCE: 6
249      Met Ala Asn Ser Thr Gly Leu Asn Ala Ser Glu Val Ala Gly Ser Leu

```

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/875,076

DATE: 12/19/2001

TIME: 12:59:07

Input Set : N:\Crf3\RULE60\09875076.RAW.txt

Output Set: N:\CRF3\12192001\I875076.raw